

Application No.: 10/694,287
Amendment dated: July 21, 2006
Attorney Docket No.: 21295.65 (H5680US)

This listing of claims will replace all prior versions and listings of claims in this application:

a) Listing of Claims

What is claimed is:

1. (Previously presented) A sample carrier for a confocal microscope, comprising: a first coverslip and a second coverslip, wherein the second coverslip carries a mirror; wherein the mirror surrounds a sample region which is defined on the second coverslip; a frame which holds the first and the second coverslip and thereby provides a cavity between the first and the second coverslip; a medium filled in the cavity, which has approximately the same refractive index as the first and the second coverslip.
2. (Original) The sample carrier as defined in Claim 1, wherein the substrate of the first and the second coverslip is made of anisotropic or isotropic materials that are transparent to the wavelengths used.
3. (Original) The sample carrier as defined in Claims 1, wherein the first and the second coverslip are made of quartz glass; and the medium in the cavity is glycerol.
4. (Original) The sample carrier as defined in Claim 3, wherein the distance between the first and the second coverslip is no greater than 50 μm .
5. (Original) The sample carrier as defined in Claim 1, wherein the mirror on the second coverslip is made from a material that acts reflectively for light in a wavelength region between $\lambda = 300 \text{ nm} - 1300 \text{ nm}$.
6. (Original) The sample carrier as defined in Claim 5, wherein the material of the mirror is aluminum or silver with a protective layer, or gold.

Application No.: 10/694,287
Amendment dated: July 21, 2006
Attorney Docket No.: 21295.65 (H5680US)

7. (Original) The sample carrier as defined in Claim 5, wherein the mirror is made of a dielectric mirror coating.
8. (Original) The sample carrier as defined in Claim 1, wherein the mirror is embodied as a circular ring around the sample region.
9. (Original) The sample carrier as defined in Claim 1, wherein at least the first or the second coverslip is secured to the frame using a special adhesive.
10. (Original) The sample carrier as defined in Claim 1, wherein the first and the second coverslip are in the shape of a circle.
11. (Original) The sample carrier as defined in Claim 1, wherein the first and the second coverslip possess the shape of a polygon with sides of identical length.
12. (Original) The sample carrier as defined in Claim 1, wherein the first and the second coverslip are in the shape of a rectangle.
13. (Original) The sample carrier as defined in Claim 1, wherein the microscope is a interferometric fluorescence microscope, such as 4-pi microscope, standing wave field microscope, I^2M , I^3M , and I^5M microscope, and theta microscope.

Claims 14-19 - Cancelled